



A Strategic Inflection Point for Translation

Subtitle

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Overview

- Finding the Doctor in London
- The streams of content
- A Strategic Inflection Point for translation
- It takes an ecosystem of technology
- How large global enterprises are focusing on machine translation
- The future of human and machine translation

UNDERGROUND

SUBWAY



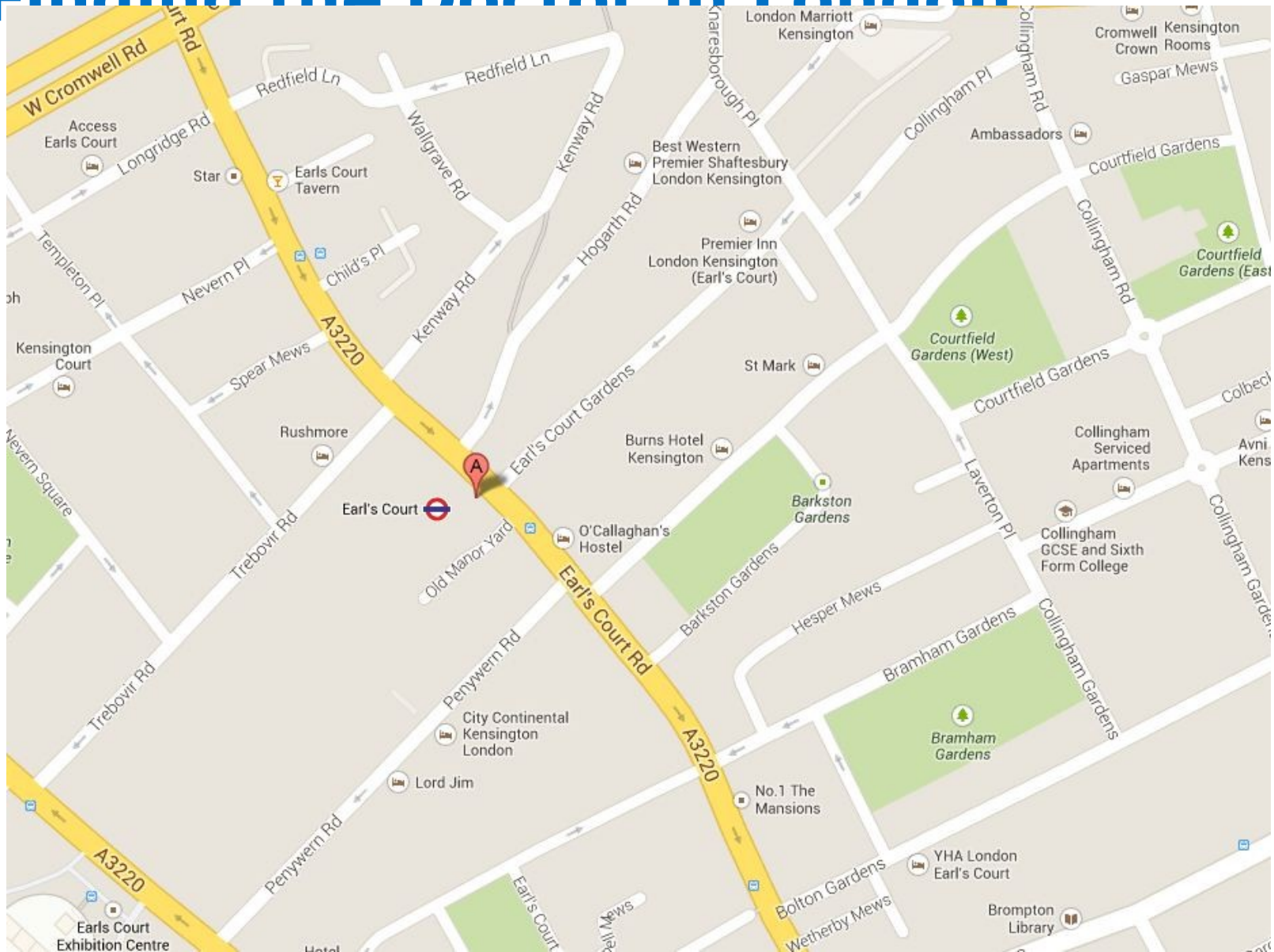
Advertisement for McDonald's featuring the golden arches logo on a red background. The word "McDonald's" is visible at the bottom left of the sign.



Advertisement for TD Bank featuring the TD logo and the word "TD" in large blue letters. Below it, the word "SAVING" is partially visible in red letters.



Finding the Doctor in London





(Click on image for the video)

The Translation Circuit

- Part of the TARDIS* that allows instantaneous translation of most spoken or written languages in the universe.
- The Ninth Doctor told Rose Tyler that the translation circuit was a "gift of the TARDIS, a telepathic field that gets inside your brain and translates." (TV: *The End of the World*).
- The Doctor himself was a part of the circuit, without whom the circuit was broken.
- When the Tenth Doctor was incapacitated due to post-regenerative crisis, Rose lost access to the circuit, and could no longer understand other languages. (TV: *The Christmas Invasion*).
- This technology came from the 42nd Century.

Source: *TARDIS Data Core*

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**For Earth, the beginning was
different**

**TRANSLATION:
YESTERDAY,
TODAY,
TOMORROW**

Source: TAUS

Thousands of years later, on January 7, 1954 Georgetown-IBM MT system on Russian

IBM* model 701

60 relatively simple Russian
fairly accurate English tran



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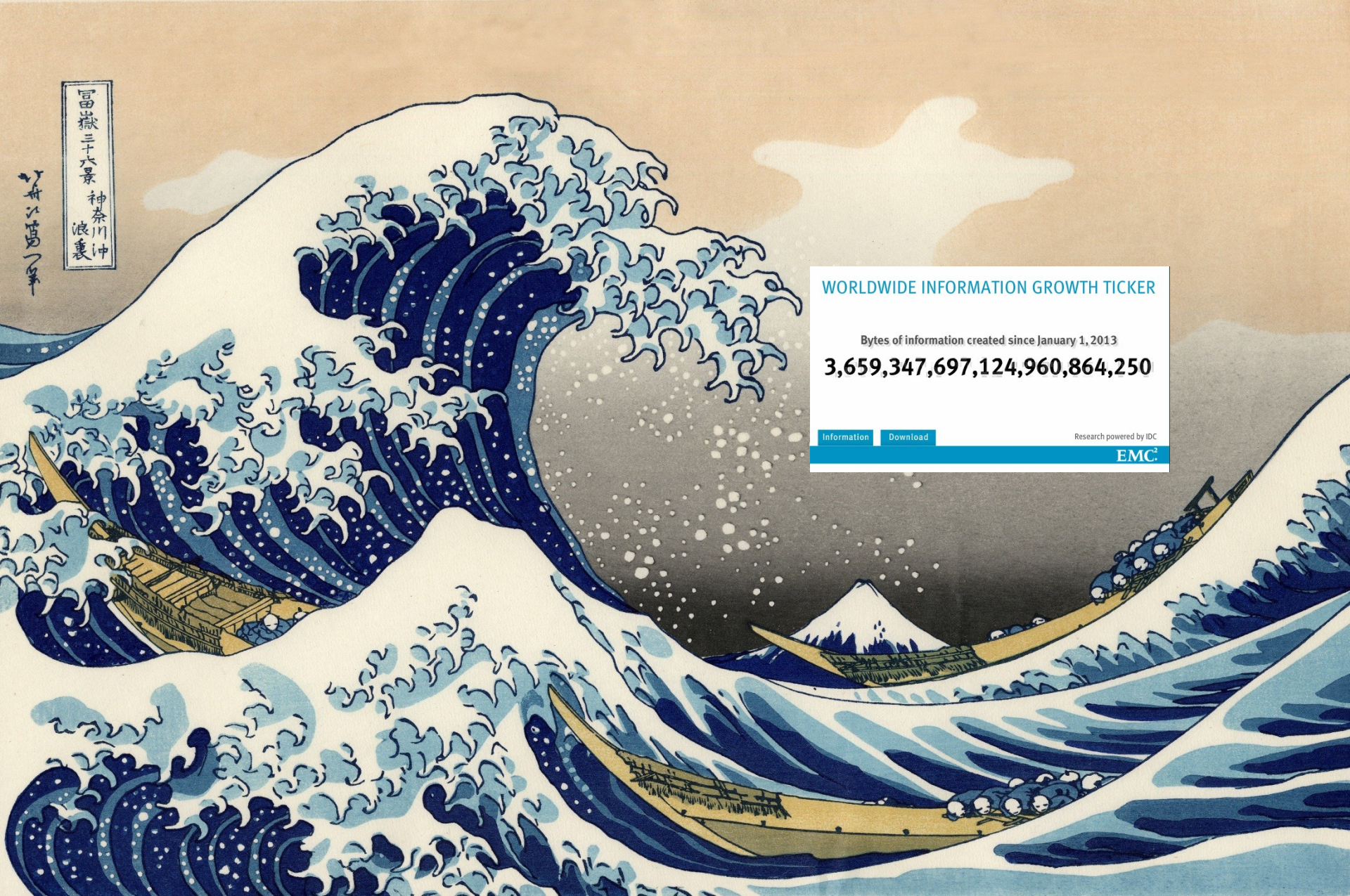
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Today MT is translating a constant stream of content



But isn't it really a tsunami!



富士三十六景 神奈川沖
波裏

以舟江雷一平

WORLDWIDE INFORMATION GROWTH TICKER

Bytes of information created since January 1, 2013

3,659,347,697,124,960,864,250

[Information](#) [Download](#)

Research powered by IDC



Timeline of Information and Retrieval Systems

- 9,000 BCE Agriculture
- 3,000 BCE Written Languages
- 2,500 BCE Papyrus (paper) technology

- 390 BCE Plato's Forms
- 340 BCE Aristotle's Categories
- 2nd Century BCE Septuagint Translation Hebrew-to-Koine Greek

- 850 First Printed Book (China)

- 1455 Gutenberg's Printing Press

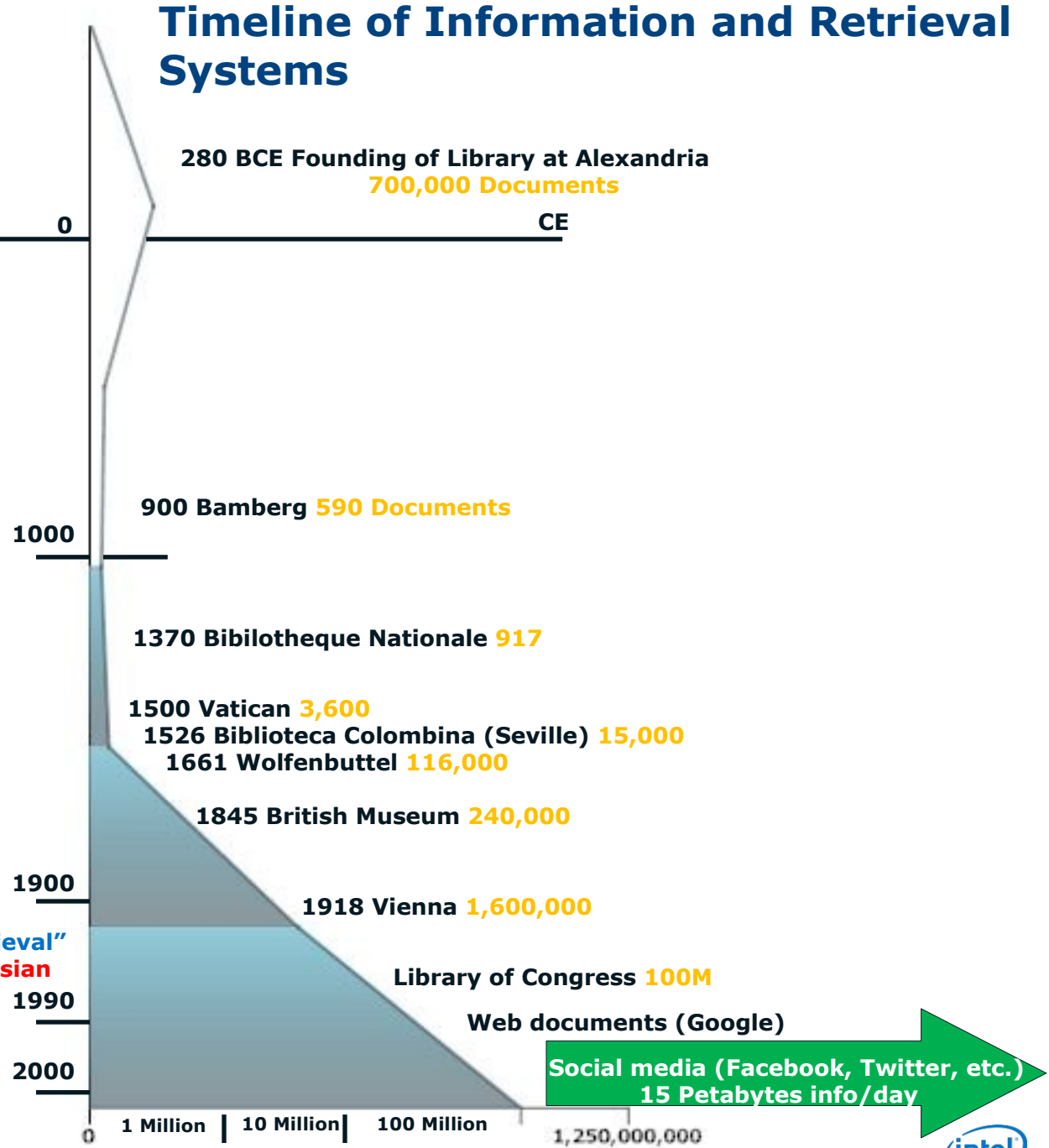
- 1600 Cartesian Coordinates

- 1878 Dewey's Numeric Classifications

- 1946 First Electronic Computer
- 1950 First citation of "Information Retrieval"
- 1954 Georgetown-IBM* MT English-Russian

- 1990 Birth of the World Wide Web
- 1993 Mosaic GUI Browser

- 1994 Yahoo*
- 1998 Google*
- 2004 Facebook*
- 2006 Twitter*



Based on source: Ned Fielden, San Francisco State University

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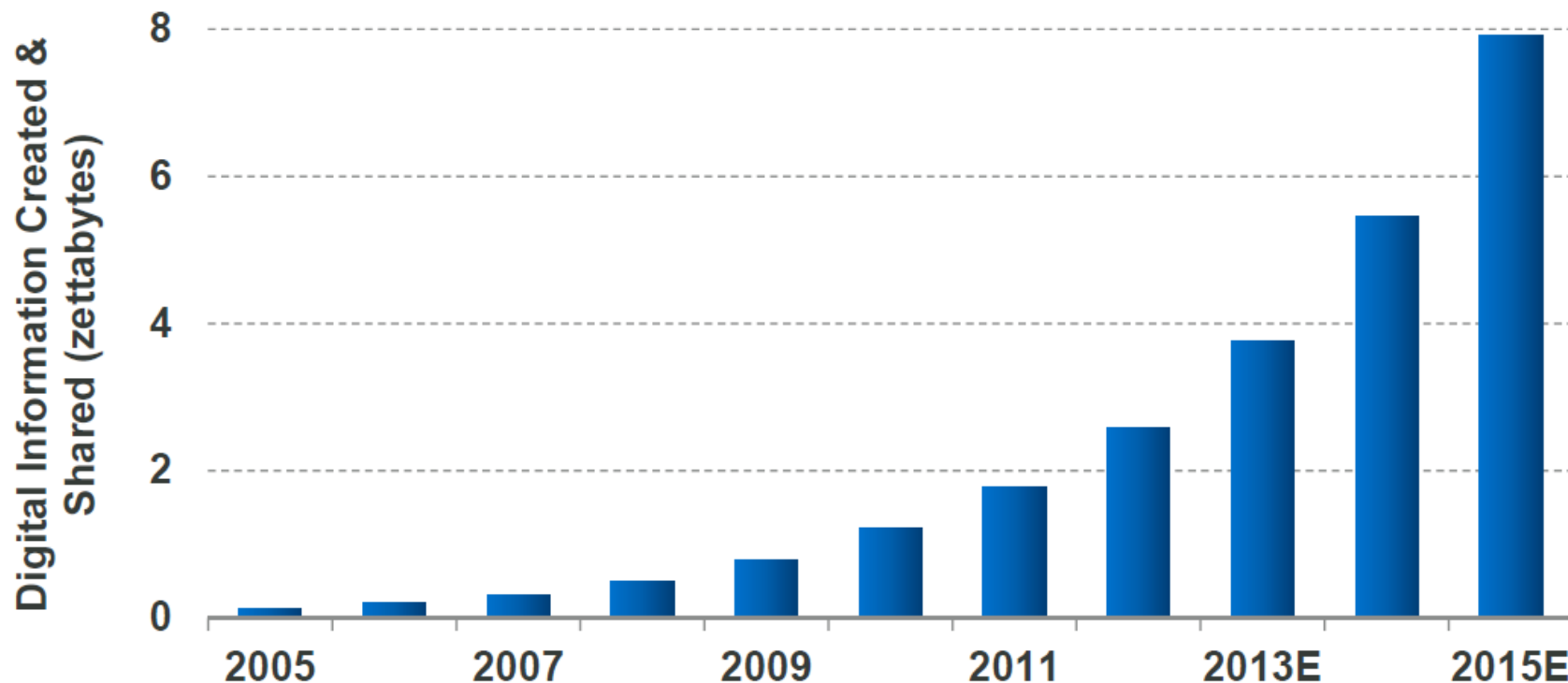


Wave upon wave of digital information

*Amount of global digital information created & shared
– from documents to pictures to tweets –
grew 9x in five years to nearly 2 zettabytes* in 2011, per IDC.*

(2,000,000,000,000 gigabytes)

Global Digital Information Created & Shared, 2005 – 2015E



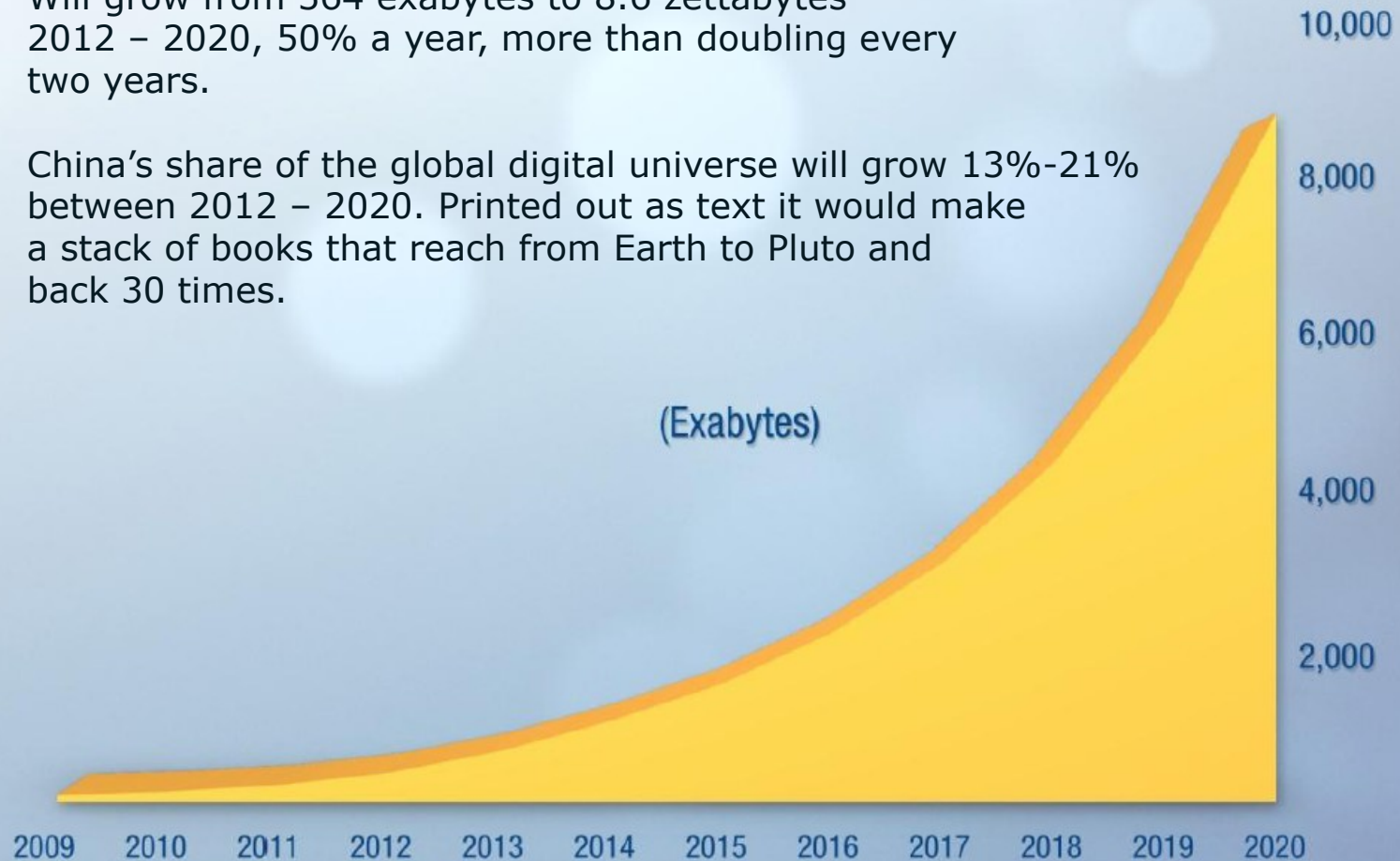
Note: * 1 zettabyte = 1 trillion gigabytes.

Source: IDC report "Extracting Value from Chaos" 6/11.

The Digital Universe: China Growth

Will grow from 364 exabytes to 8.6 zettabytes
2012 – 2020, 50% a year, more than doubling every
two years.

China's share of the global digital universe will grow 13%-21%
between 2012 – 2020. Printed out as text it would make
a stack of books that reach from Earth to Pluto and
back 30 times.

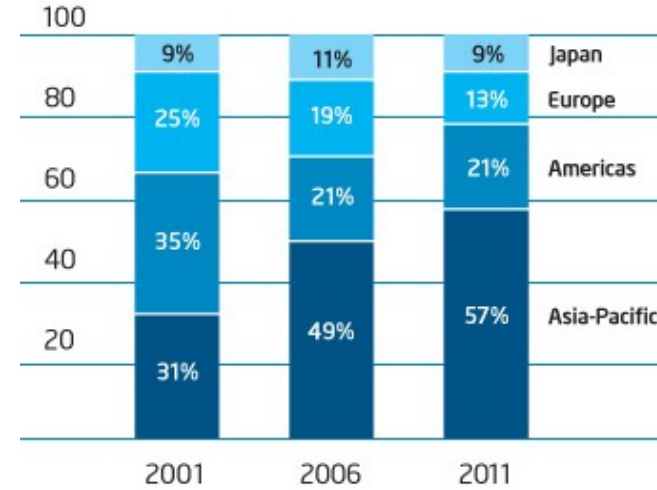
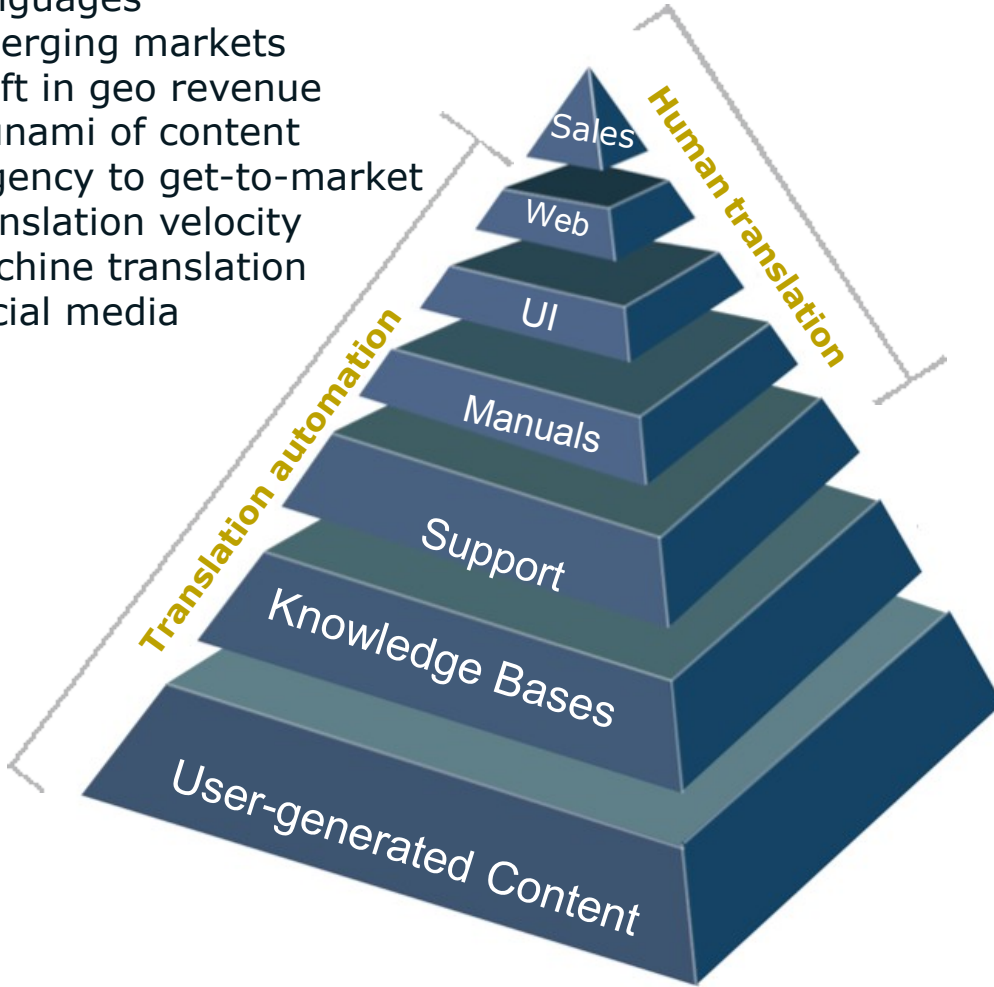


Source: IDC's Digital Universe Study, sponsored by EMC, December 2012

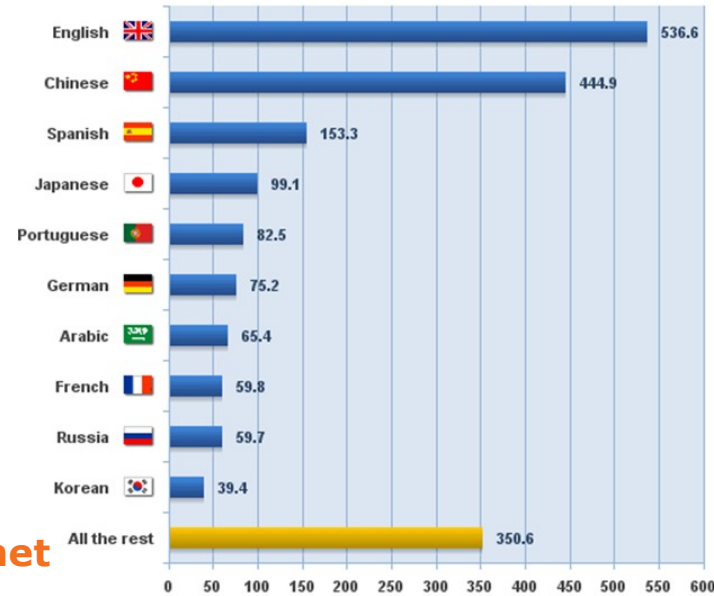
A Strategic Inflection Point for Translation

Intel Geographic Breakdown of Revenue (79% outside Americas in 2011)

- The Internet
- Explosion in the number of devices
- Languages
- Emerging markets
- Shift in geo revenue
- Tsunami of content
- Urgency to get-to-market
- Translation velocity
- Machine translation
- Social media



Internet Users by Language (in millions)



Google* CEO Eric Schmidt predicted by 2014 the internet will be dominated by the Chinese language

Source: 2011 Internet-World Stats

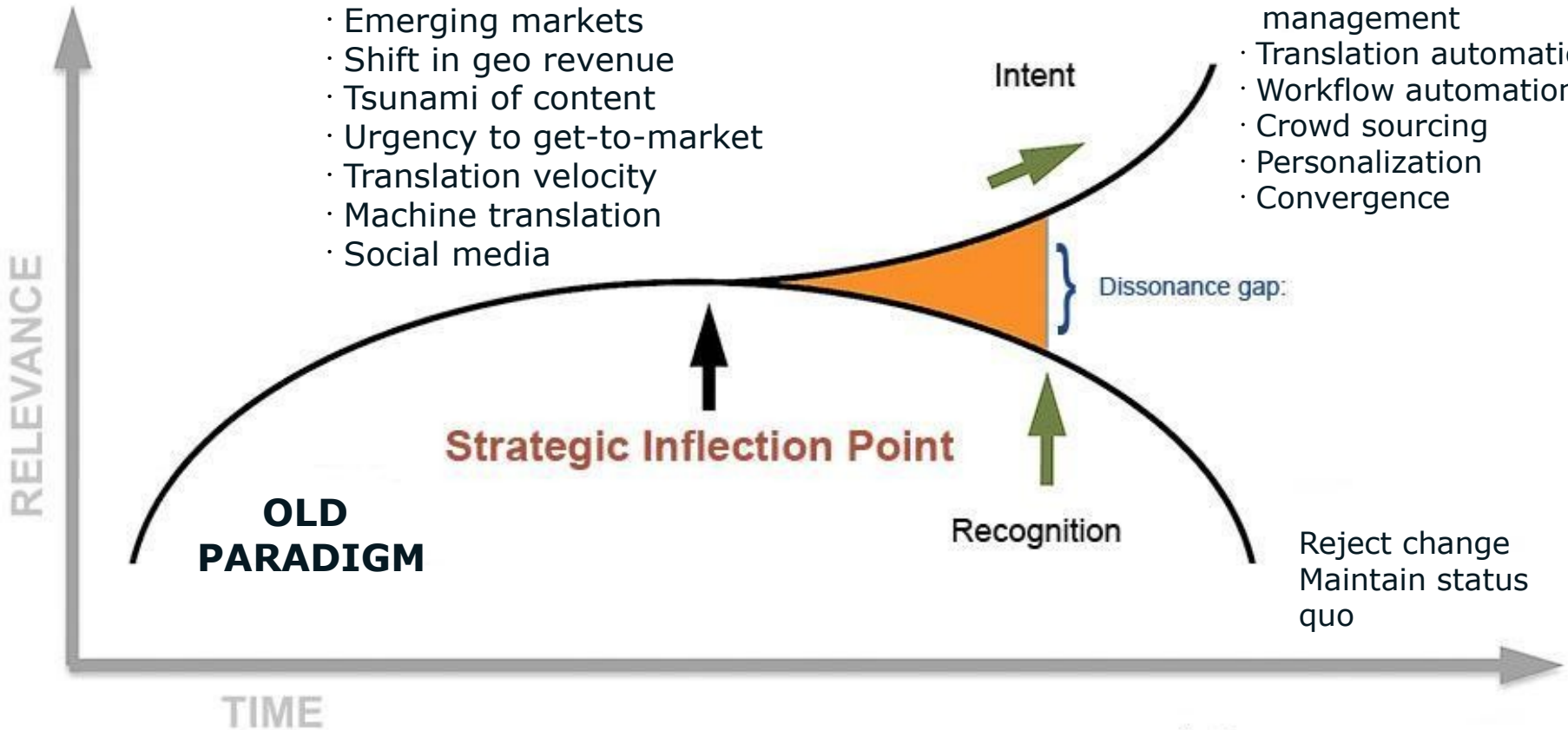
Strategic Response to Translation Inflection Point

CAUSES

- The Internet
- Explosion in the number of devices
- Languages
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- Shift in geo revenue
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- Social media

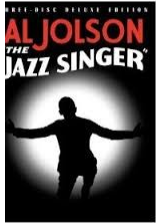
NEW PARADIGM

- Accept change*
Adjust methods
- Content quality management
 - Translation automation
 - Workflow automation
 - Crowd sourcing
 - Personalization
 - Convergence



point caused by dramatic changes in technology

Silent Movies



- › Something fundamental changed when the Jazz Singer debuted on October 6, 1927. With that single qualitative change, the lives of many people, stars, directors, and technicians of silent movies changed forever.



- › Some made the change (Greta Garbo)



- › Some tried to adapt and failed (Mary Pickford)



- › Some became obsolete (theatre musicians)

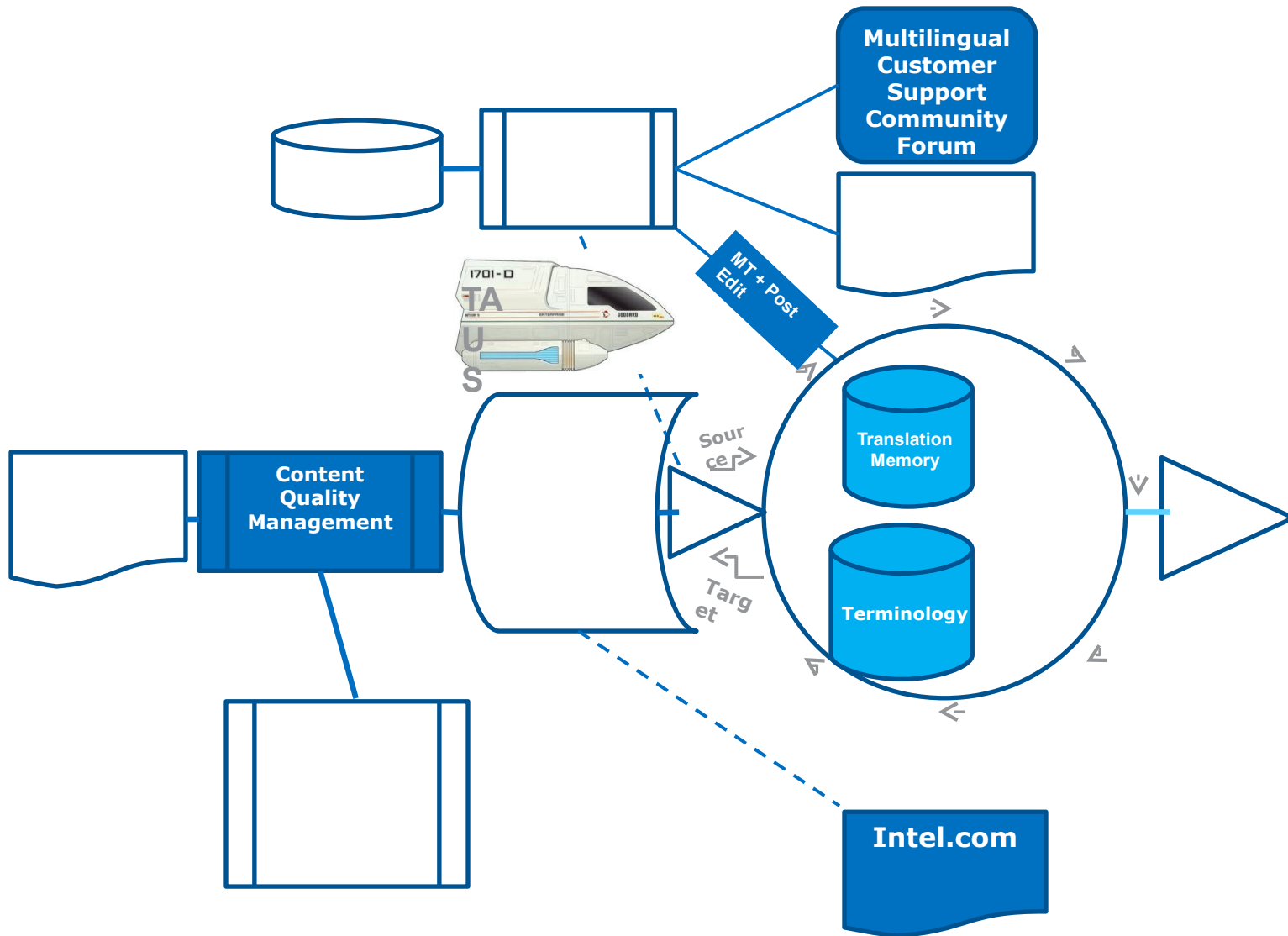


- › Others in denial, clung to the old trade (Charlie Chaplin)

If it was only easy to do!



But it takes an IT ecosystem for an enterprise to manage the tsunami



Example of how corporations can adjust to the translation inflection point in customer care using MT



Global Knowledge Bases

Delivering support in the customer's language to ensure a good user experience



Multilingual Email

Enables global support agents to answer customer questions without having to know the customer's language.



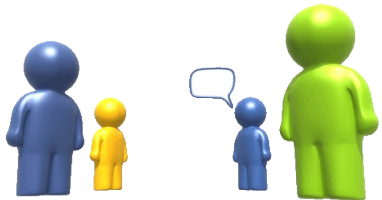
Cross Language Chat

Real-time customer support using multilingual chat (for example, English <-> German)



Sentiment Analysis

Brand makers need to know what customers are saying about products by region and language, and use that data to improve products, service, and the user experience



Global Support Forums

Extend customer support by enabling "many to many" community support

Intel Customer Support Knowledgebase

- Before MT, Intel could only afford to translate about 15% of the 10,000 customer support files for any given language
- First MT system launched on Intel Customer Support site 2007
- Today we have 10 languages in support.intel.com with eight using MT. 97% of the content is translated by MT (unedited) into Latin American Spanish, Brazilian Portuguese, French, Italian, Russian, Chinese-Simplified, Chinese-Traditional, and Korean.
- Runs on an automated 24-hour cycle, English-to-target language

Select a Different Product

Guide Me
Identify Your Product
Search for Drivers
Search for Documents
Search for Specifications

Did you find this information to be helpful?
 Yes No

If you have additional feedback, please let us know.

Remaining Characters: 300

Submit

We appreciate all feedback, but cannot reply or give product support. Please do not enter contact information. If you require a response, contact us.

Processors

Notebook processors
Laptop/Notebook BIOS does not identify or recognize the processor

Troubleshooting BIOS issues:

The BIOS must identify the processor correctly for proper system operation. If the BIOS does not correctly identify the processor, check with the system or motherboard manufacturer to make sure the processor is supported. Also check for newly revised BIOS updates and installation instructions.

Suggestions:

- Make sure the laptop computer supports the processor (including type of processor, socket type, speed, and voltage).
 - Processor information and comparisons
 - Intel® Processor Identification Utility
- Make sure you do not run the processor at a faster speed than is indicated on the processor.
- Check for any settings in the CMOS setup program that need to be configured on the laptop, including settings that indicate the speed of the processor.
- Get information on notebook systems.

Intel® Customer Support

If you have an issue specific to Intel® software or hardware that your notebook manufacturer or service provider cannot address, contact Intel® technical support via the web, email, and telephone. The System Information Utility discovers components inside your PC and provides relevant Intel support links.

英特尔 社区 内容定位器

机器翻译免责声明
英文 查看此页面的英语原版。

选择另一个产品

操作指南
识别您的产品
搜索驱动程序
搜索文档
搜索规格

您认为此信息有帮助吗?
 是 否

如果您有其他意见, 请告诉我们。

可用字符: 300

提交

我们非常感谢您的反馈意见, 但不能回复或提供产品支持。请勿输入联系信息。如果您需要回复, 请联系我们。

处理器

笔记本电脑处理器
便携式电脑 / 笔记本电脑 BIOS 无法识别或认出处理器

BIOS 问题故障排除:

对处理器的正确的 BIOS 必须确定相应的系统操作。如果 BIOS 无法正确识别处理器, 请向系统或主板制造商确认是否支持该处理器。同时, 请检查最新修订的 BIOS 更新及安装说明。

建议:

- 确保便携式电脑支持处理器 (包括处理器类型、插座类型、速度和电压)。
 - 处理器信息和对比
 - 英特尔®处理器标识实用程序
- 请确保您不要运行处理器更高的速度比处理器上指示。
- 检查 CMOS 设置程序中的任何设置, 需要配置便携式电脑上, 包括设置, 则说明处理器的速度。
- 笔记本电脑系统上获得相关信息。

英特尔®客户支持

如果您有任何特定的英特尔®软件或硬件, 您的笔记本电脑制造商或服务提供商无法解决, 请联系英特尔®技术支持通过 Web、电子邮件和电话。内部组件的 系统信息实用程序 检测到您的电脑与

Customer Care and User-generated Content

Multilingual Customer Support Community Forum

How to replace battery on Intel duo CPU E4500?

Hello - I'm new to this forum and am not a super-techie, so I hope someone can help me solve this issue. Whenever I reboot, I get the error "Diskette Drive 0 Seek Error, and have to hit F1 to continue. I have tried modifying the boot config to remove any reference to a diskette, but it keeps thinking I have one. Also, when there's a power failure, my clock resets to 1/1/07 which really screws things up until I remember to adjust the time. I am told the battery on the motherboard needs to be replaced.

This PC is a few years old...what it says specifically in general system properties is:

Intel® Core™2 Duo CPU
E4500 @2.20GHz2.19 GHz, 1.99 GB of RAM
Physical Address Extension

I'm running MS Windows XP Professional Version 2002, Service Pack 3

Can I replace the battery on the motherboard, how would I go about doing this, and is it difficult? Would that solve both these issues?

Thanks in advance for your assistance!

Selene



Language English > Spanish Go

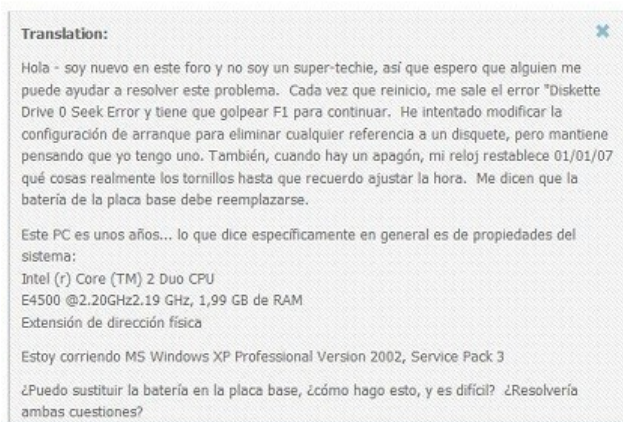
Select a language

- English > French
- English > German
- English > Portuguese
- English > Simplified Chinese
- English > Spanish

178 Views Tag replace, battery, e4500

Categories: Computing & Internet & Communication, Performance & Optimization

Translate



Translation:

Hola - soy nuevo en este foro y no soy un super-techie, así que espero que alguien me puede ayudar a resolver este problema. Cada vez que reinicio, me sale el error "Diskette Drive 0 Seek Error y tiene que golpear F1 para continuar. He intentado modificar la configuración de arranque para eliminar cualquier referencia a un disquete, pero mantiene pensando que yo tengo uno. También, cuando hay un apagón, mi reloj restablece 01/01/07 qué cosas realmente los tornillos hasta que recuerdo ajustar la hora. Me dicen que la batería de la placa base debe reemplazarse.

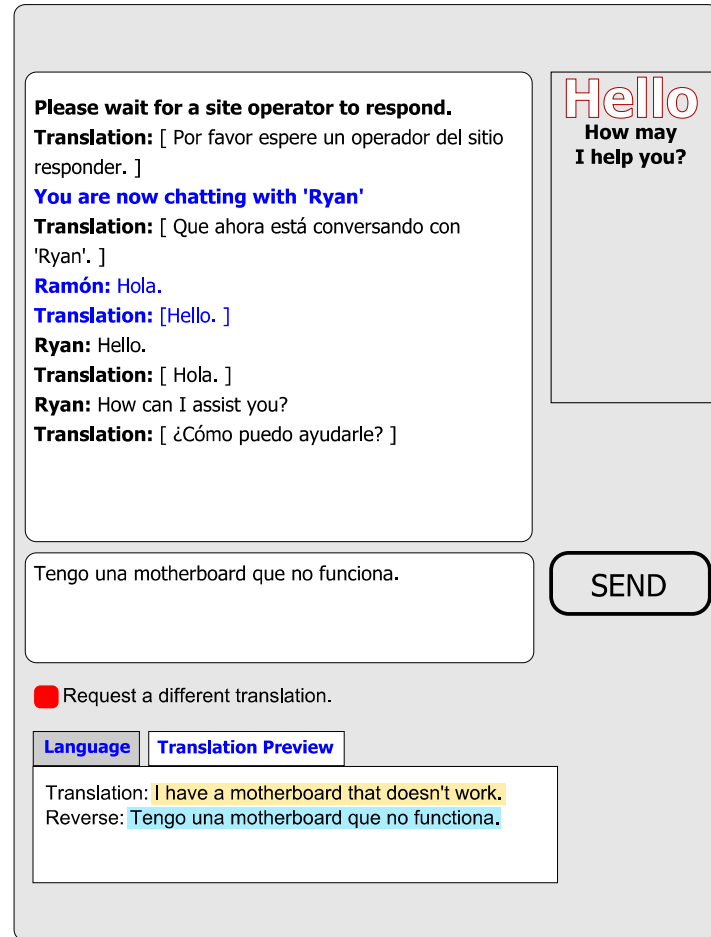
Este PC es unos años... lo que dice específicamente en general es de propiedades del sistema:

Intel (r) Core (TM) 2 Duo CPU
E4500 @2.20GHz2.19 GHz, 1,99 GB de RAM
Extensión de dirección física

Estoy corriendo MS Windows XP Professional Version 2002, Service Pack 3

¿Puedo sustituir la batería en la placa base, ¿cómo hago esto, y es difícil? ¿Resolvería ambas cuestiones?

Multilingual Chat (Prototype)



Please wait for a site operator to respond.
Translation: [Por favor espere un operador del sitio responder.]
You are now chatting with 'Ryan'
Translation: [Que ahora está conversando con 'Ryan'.]
Ramón: Hola.
Translation: [Hello.]
Ryan: Hello.
Translation: [Hola.]
Ryan: How can I assist you?
Translation: [¿Cómo puedo ayudarle?]

Hello
How may I help you?

Tengo una motherboard que no funciona.

SEND

Request a different translation.

Language Translation Preview

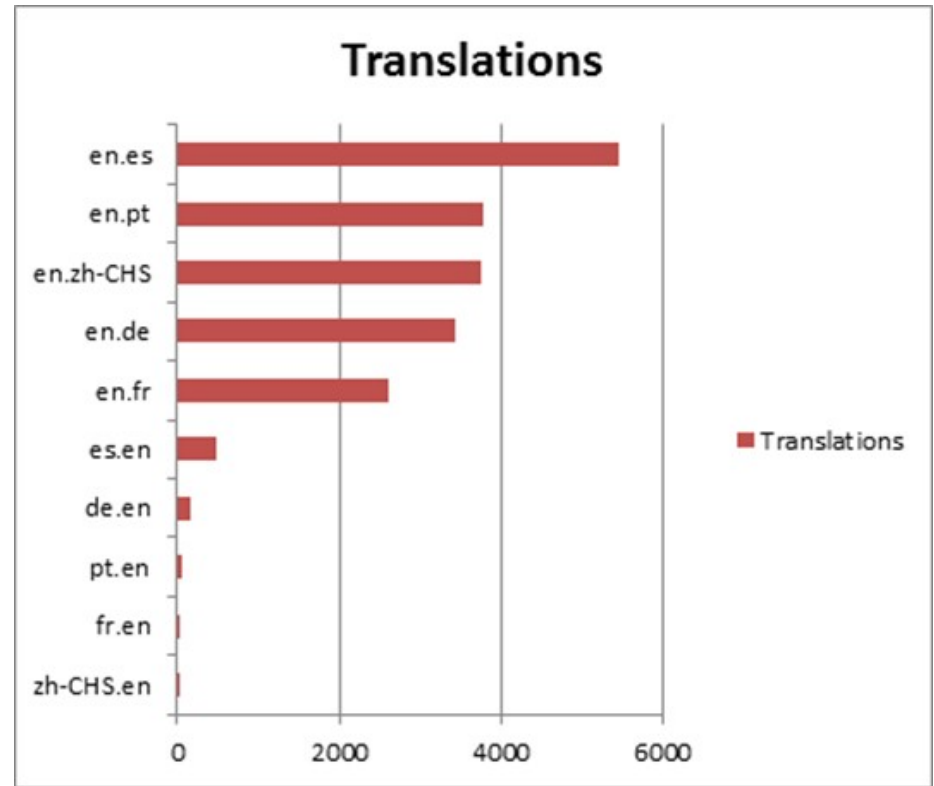
Translation: I have a motherboard that doesn't work.
Reverse: Tengo una motherboard que no funciona.



Multilingual Intel Customer Support Community Forum (real time, unedited)



- MT used 19766 times from January to September 2013; an average of 73 uses/day
- 67% of translations are rated Four or Five stars (scale 1-to-5) in quality



The future of machine translation

TAUS*

- Proposes that translation is becoming a utility similar to electricity, internet or water. Always available. Real-time when needed.



Google*

- Google Translate provides a billion translations a day for 200 million users (equivalent to more than one million books).
- 71 languages.
- 92 percent of the usage is from people outside the United States.
- Google tomorrow
 - More languages, better quality
 - Ubiquity; no matter where you are, you should have access to a translation.
 - Real-time, multilingual communication: Smartphone, tablets

*Other names and brands may be claimed as the property of others

The future of MT continued...

- **Microsoft***
 - “In the not too distant future, via smartphone or tablet, you might ask about your dinner options in a Parisian restaurant, give detailed directions to a taxi driver in Moscow, or discuss a business deal with potential partners in Tokyo—fluently, in your own voice, without knowing a word of French, Russian, or Japanese.”

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The future for translators

- **TAUS***

- Just 250,000 or so professional translators in a world of 6,000 languages.
- The future for translators looks bright, but they will have to reinvent the profession first.

- **Asia Online***

- Estimated that translators translate only about 0.00000067% of the text information created everyday!
- By 2015 there will be more demand for translators and more translators than ever before.

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Summary

- Content, rather than a stream, is more like an ever-rising tsunami
- In 2015, eight zetabytes (eight trillion gigabytes) of digital information will be created and shared
- This tsunami and machine translation has created a strategic inflection point on the whole translation industry, client- and supplier-side
 - Adapt or perish
- Translation will become a utility, ubiquitous and embedded, creating great opportunities for all
 - Technologists
 - Translators

In the meantime, companies like Microsoft* (and Intel) bring us closer



Source: Uploaded by Microsoft Research to Google* YouTube



Thank You

